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CONTINGENT OBSERVATION: AN EFFECTIVE AND ACCEPTABLE PROCEDURE FOR REDUCING DISRUPTIVE BEHAVIOR OF YOUNG CHILDREN IN A GROUP SETTING[1]

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Since a major task of childhood is learning to get along in a group without disrupting other children's activities, caregivers need explicit guidelines for gentle but effective procedures for dealing with disruptive behaviors in child-care settings. In a day-care center for normal 1- and 2-yr-old children, an effort was made to develop a procedure that appeared sufficiently humane and educational to be acceptable to parents and day-care workers, and yet effective in reducing disruptive play behaviors. Caregivers used the occasion of disruptive behavior to instruct the child in appropriate alternatives, then had the child sit on the periphery and observe the appropriate social behavior of the other children, "sit and watch", for a brief period before inviting him or her to rejoin the play activities. The effectiveness of this procedure was compared with a method commonly recommended for use with young children: instructing the child, then distracting or redirecting the child to an alternative toy or activity. Contingent observation, combining instruction with a brief timeout (from being a participant in an activity to becoming an observer of the activity), proved considerably more effective in maintaining low levels of disruptions and was considered by caregivers and parents to be an appropriate and socially acceptable method of dealing with young children's disruptive behaviors. Therefore, contingent observation can be recommended for general use in day-care programs for young children.

DESCRIPTORS: contingent observation, disruptive behavior, day care, incidental teaching, timeout, sit-and-watch, toddlers

A major difficulty in day-care programs for young children is the children's immaturity in the development of appropriate play and the absence of explicit guidelines for humane but effective procedures for dealing with the resulting disruptions. Even though such disruptions are usually quite mild, the need for some form of "discipline" or control of children's behavior is recognized by most students of day care (Evans, Shub, and Weinstein, 1971; Grotberg, 1971).

Teachers and parents dealing with young children are usually counselled to redirect or distract a child who misbehaves (Evans *et al.*, 1971; Spock, 1970). In keeping with the basic philosophy of incidental teaching, instructing children at the time and place that they show a need for instruction, caregivers and parents are frequently advised to explain to the child the inappropriateness of his/her behavior and to distract the child by redirecting him/her to another toy or activity. In fact, "diverting" the child was considered the most effective method of controlling aggressive behavior in 2- to 4-yr-old children in an extensive study of aggression in nursery schools (Appel, 1942). Despite the humaneness of this procedure, the delivery of adult attention and the offering of different toys or activities contingent upon misbehavior could

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be very reinforcing and might maintain or strengthen the inappropriate behavior that produced them.

Initial observations in a toddler day-care center serving children from 1 to 3 yr of age suggested that an equally humane and instructional but potentially less reinforcing procedure for dealing with disruptions was needed. Such a procedure had to be effective, easy to learn and use, and acceptable to both child caregivers and parents. The type of procedure that seemed to fit all these requirements best was a type of incidental teaching combined with a mild form of timeout.

The timeout literature indicates that the length of timeout needed may be related to the reinforcers available in "time in". That is, when interesting activities or strong extrinsic reinforcers are not provided, a more prolonged timeout to a barren room would be necessary; but for undesired behavior occurring in a context of highly reinforcing activity or strong extrinsic reinforcers, a brief timeout from active participation should be sufficient. For example, while prolonged (10 min) seclusion in a closed room was an effective timeout procedure in institutional wards (*e.g.,* Bostow and Bailey, 1969; Wolf, Risley, and Mees, 1964), much shorter timeouts were used successfully to reduce or eliminate undesired behavior in more reinforcing contexts: by briefly interrupting the person's engagement in the reinforcing activities of movie-watching for preschool children (Baer, 1962), earning food for deprived autistic children (Risley and Wolf, 1967), and eating a meal for retarded children (Barton, Guess, Garcia, and Baer, 1970).

In developing procedures for use in day care with very young normal children, we assumed that the toys and organized play activities would be reinforcing and that a brief timeout from active play would be effective. Furthermore, we assumed that the brief cessation of highly reinforcing play would "override" the reinforcing effects of contingent adult instruction. Azrin and Foxx (1971) and Foxx and Azrin (1972, 1973) have shown that the potential strengthening of inappropriate responses from contingent instructions does not occur when scheduled positive reinforcers are omitted and/or the subject is required to engage in effortful responses as well. Therefore, the procedures developed included telling the child what he/she did wrong and what the appropriate alternative was, separating him/her from the group (the child thus becoming an observer rather than a participant), instructing him/her to observe the appropriate behavior of the other children, then returning him/her to the group when he/she indicated that he/she was under social control (by indicating that he/she "understood", or for older children by describing what appropriate play behavior was expected of him/her), and praising his/her subsequent appropriate behavior. A more secluded timeout in the "quiet place" was added as a "back-up" contingency for the child who did not sit quietly.

This study was conducted to determine whether this "contingent observation" procedure was more or less effective than the more commonly recommended procedure of redirecting a child to an alternative activity or play material when disruptions occurred.

METHOD

Subjects and Setting

Children attending the Toddler Center of the Lawrence Day-Care Program, a day-care facility located in a university town (pop. 46,128) and providing both full- and half-day care to children ranging in age from 12 to 36 months, served as subjects. A total of 26 children, 15 boys and 11 girls, participated over the 11 weeks of the study. The maximum attendance at any one time was 21 and the minimum 11. At the beginning of the study, the age range of children enrolled at the Toddler Center was 18 to 34 months ($x = 23$ months). All families were paying full fees for day care ($100 per month full time and $60 per month part-time). Except for one child diagnosed as partially deaf and

another who had an unusual back problem that caused her apparent pain throughout the study, the children had no special problems.

Five caregiving employees, four females and one male, also participated; none had previous training or experience in child behavior-modification procedures. Except for the center supervisor, who was a college graduate, caregivers were representative of the usual transient paraprofessional staff employed at minimum wages in child-care settings and institutions (Keyserling, 1972).

No systematic caregiver procedures for dealing with child disruptions were used at the Toddler Center before this study. The caregivers had been instructed that any instance of physical abuse (*e.g.,* hitting, shaking) of a child would result in immediate dismissal, and that they were responsible for protecting the children from harm. Before the study began, the caregivers reported that some children were particularly troublesome because of biting, hitting, taking other children's toys, and crying. Such situations were usually handled by caregivers trying to interest the child in some other activity.

All observations were conducted during free-play periods in either one of the two adjacent Toddler Center play rooms, which were separated by a gate, or outside in the fenced playground. The play rooms were large, irregularly shaped rooms furnished with a small table and chairs and a bean-bag chair, and lined with well-equipped toy shelves mounted slightly above child reach. Only one room was observed at a time; if there were children in both play rooms, the room having the most children was the one in which observations took place. The playground was a fenced area (7.5 by 12 m) containing two sandboxes, two climbing toys, a slide, and various small toys. At all times, the children were attended by at least one, and usually two, adults.

During indoor free-play periods, the children could obtain any toy from the shelves on request. Both indoors and outdoors, caregivers encouraged children to use available toys, participate in play activities, and otherwise interact with the materials and people around them.

Observations

Three 15-min observations, spaced throughout each day, were made. The observer noted and described all instances of disruptive behavior, the name of the child or children involved; the name of the caregiver responding to the disruption, if any, the reaction of the caregiver, and whether or not the caregiver responded appropriately and completely with all procedures required under the particular experimental condition in effect. Disruptions apparently not observed (not seen or heard) by caregivers were also recorded and described.

Disruptive behavior was defined as any one of five types of behaviors:

(1) *Aggression:* any act of physical abuse directed toward another child (*e.g.,* hitting, pushing, kicking, biting).

(2) *Crying and fussing:* vocalizing with tears.

(3) *Tantruming:* a loud upset with or without tears.

(4) *Destructive use of toys:* any use of a toy that could break or damage the toy or damage something else in the center (*e.g.,* pounding a toy on the wall or on a piece of furniture, standing on a toy, tearing a book).

(5) *Creating a dangerous situation:* getting into a situation in which the child might hurt him- or herself or others (*e.g.,* standing on a bench, climbing on a counter, throwing hard toys).

Reliability of measurement was assessed on 23% of the observations sampled throughout the study (on at least four observations in each experimental condition). Three different observers (one naive to the study) made independent observations simultaneously with the primary observer on different occasions. The two observers stood several feet apart while making their observations. Percentage agreement was calculated separately for total disruptions, aggressions, disruptions observed by a caregiver, and caregiver adherence to prescribed proce-

dures. Each instance of a recording in one of these categories was scored as either an agreement or a disagreement. To score an agreement on a disruption, both observers must have recorded the same child or children's names, the same form of disruption, and the same sequence of occurrence of that disruption in the 15-min observation period. Caregivers' seeing or hearing a disruption and their adherence to procedures were scored only across instances when both observers agreed on the incidence of disruption. Interobserver agreement (computed by dividing agreements by agreements plus disagreements per observation) in recording disruptions was 87% (range 50 to 100%), for aggressions 83% (range 0 to 100%), for disruptions observed 95% (range 50 to 100%), and for caregiver adherence 94% (range 34 to 100%). Agreement did not systematically differ across experimental conditions.

Experimental Conditions and Design

Two different methods of responding to disruptive behaviors were investigated: "redirect" in which caregivers distracted disruptive children; and contingent observation in which caregivers separated disruptive children from the group and later gave positive attention for appropriate behavior. These two conditions were alternated in a reversal design that began and ended with contingent observation. Before starting the study, caregivers' reports and our informal observations left no doubt that disruptions were a problem for this group of children. Hence, the research was designed to compare the relative effectiveness of contingent observation and another commonly recommended procedure, redirection, and did not collect baseline data on the children's disruptions when no particular procedure for handling them was prescribed.

Redirection. During days when the redirection condition was in effect, caregivers were instructed to respond to each disruption by describing the form and inappropriateness of the behavior to the child and then redirecting him/her to an alternative toy or activity. For example, if a child took a toy from another child, the caregiver would say, "No, don't take toys. Come over here and listen to a story".

Caregivers were also instructed to comfort children who were upset or crying by briefly holding or cuddling them and then trying to interest them in toys or other activities.

Contingent observation: Under contingent observation conditions, the caregivers were instructed to respond to each instance of disruptive behavior as follows:

1. They briefly described the form and inappropriateness of the behavior to the child and told him/her what would have been appropriate behavior in the situation. For example, when a child took a toy away from another child, a caregiver would respond by saying, "No, don't take toys from other children. Ask me for the toy you want".

2. They moved the child to the periphery of the activity, sat him/her on the floor without play materials, and told him/her to observe the appropriate social behavior of the other children. For example, a caregiver would say, "Sit here and watch how the other children ask for the toys they want".

3. When caregivers noticed that the child had been watching quietly for a brief but unspecified length of time (generally less than 1 min), they asked the child if he or she was ready to rejoin the play activities and use the appropriate social behavior. For example, a caregiver might say, "Do you know how to ask for the toys you want?". If the child indicated by nodding, getting up, or verbalizing that he/she was ready to return to the group, the child was allowed to do so. If the child did not respond or responded negatively, the caregiver told him/her to sit and watch until he/she was ready: "Sit here and watch the children until you think you can ask for the toy you want". When the child continued to sit quietly for another brief period (usually 30 sec to 1 min), the caregiver returned and again asked if the child was ready to rejoin the group. Again, a positive response

was required. Since the purpose of the procedure was to return the child to the group as soon as he/she indicated he/she was under social control, a behavioral criterion, rather than a specific length of time, was used; only a rough time guide was specified in the caregiver instructions.

4. When the child was returned to the group, the caregiver gave him/her positive attention for appropriate behavior. As soon as the child asked for a toy, for example, a caregiver would say, "Good! You asked for the toy you wanted".

Caregivers were also instructed to comfort fussy or crying children in the same way as during redirection conditions. Because toddlers' upsets (like other people's) usually have some obvious objective basis besides simple attention-seeking,[1] we were concerned that caregivers remain alert to these signals of problems. However, if a child's upset continued after a caregiver briefly comforted the child and tried to interest him/her in an activity, caregivers were instructed to ask him/her to relax in a bean-bag chair placed on the edge of the play area. A caregiver might say, "Rest here until you feel better", and place the fussy child in the chair. The child did not need a specific invitation from the caregiver to rejoin the play activities, but could return as soon as he/she was calm and ready.

The day-care center provided a standard mesh playpen with its sides covered by a colorful bedsheet as a "quiet place". Children could ask to go to the quiet place at times when they were not disruptive, but simply when they wanted to rest, be alone, or play with a particular toy of their choice by themselves.

Under the contingent observation procedure, a disruptive child who did not calm down within a few minutes, who was crying or screaming so loudly that other children's play activities were disrupted, or who refused to sit quietly on the periphery of the play area was taken to this "quiet place" without play materials. When a caregiver determined that a child should be taken to the quiet place, he/she explained the reason and told the child when he/she would be ready to return to the area. For example, the caregiver might say, "Rest here until you are calm" or "Since you can't sit quietly here, you need to go to the quiet place and practice sitting quietly".

As soon as the child was calm or sitting quietly, the caregiver asked if the child was ready to sit quietly and watch. A positive response was required before the child was returned to a "sit-and-watch" location. Again, when a child was returned to the group, caregivers were instructed to give positive attention for appropriate behavior.

Caregiver Training and Feedback

Contingent observation procedures, which came to be called "sit-and-watch", were introduced to the caregivers and used in the Toddler Center for a training period of nine days before data collection was begun. Written and verbal instructions, modelling, and feedback were used in training. Written instructions stated the purpose of the procedures and explained exactly what should be done for each type of disruption. Examples of what might be said to a child who had engaged in each type of disruptive behavior and how the child should be returned to the group were also included.[2] Each caregiver read the written instructions; then the procedures were discussed, both individually and in a staff meeting.

The experimenter modelled the correct procedures for the caregivers in actual situations at the Toddler Center involving children's disruptive behavior. Following modelling, the procedures were again discussed individually with each caregiver.

Caregiver adherence to the contingent observation procedures was measured daily, both during the training period and throughout the study, in three 15-min observation periods. During training, verbal feedback on the use of the

[2]These training materials may be obtained from the authors.

procedures was given individually to each caregiver following the observation period. Since adherence was at first very low, each day the total per cent accuracy of all caregivers in performing the procedures was determined (by dividing the number of disruptions for which the procedure was used correctly by the number of disruptions the observer recorded as observed by the caregiver and multiplying by 100) and posted on the staff bulletin board. This procedure continued throughout the contingent observation portions of the study.

Follow-up

To determine whether or not the caregivers could maintain accuracy in using contingent observation procedures without the presence of the observer or daily observer feedback, the center supervisor was assigned the responsibility of intermittently monitoring caregivers' use of the procedures. The supervisor was instructed to record any occasion of incorrect use of the procedures or failure of a caregiver to respond to a child's disruptive behavior that she observed during the day. At the end of each day, the supervisor also noted the names of those caregivers seen using the procedures correctly during the day. The supervisor's notes were made part of a "quality check" form already being used as feedback to caregivers on other aspects of job performance. Each day this form was posted on the staff bulletin board, and all caregivers were required to read and initial the form daily. The supervisor was also instructed to remind caregivers to use "sit-and-watch" each time a caregiver used the procedures incorrectly or not at all, as well as to give positive feedback to caregivers who used the procedures correctly.

To determine whether the supervisor was correctly recording caregiver errors in the use of contingent observation procedures, spot checks were made informally at three different times during the day on 15 separate days after formal data collection had been completed. The experimenter, who frequently entered the center for a variety of reasons, made observations of about 1-min duration. After leaving the center, information on disruptions occurring, children involved, staff member responding, and accuracy of response was recorded in a manner similar to that used for formal data collection.

At the end of each week, the supervisor's records were compared with the spot-check data. Although observations would not be identical, nor could they be matched disruption by disruption, it was expected that the two records should give a general picture as to how well caregivers were following the procedures.

Follow-up data were taken one and two months after the last day of formal data collection to determine whether or not the use of the contingent observation procedures was maintaining a low level of child disruptions. On these two days, formal 15-min observations were made three times during the day, and data were recorded in the same manner as during the study. Interobserver agreement was computed for one of the observation periods each day.

Social Validation

Since the effects of procedures may be judged by many persons who come in contact with the procedures, and not always on the basis of objective data, we attempted to determine whether the Toddler Center sounded pleasant during times when each of the two procedures was in effect. Five audio-tape recordings, each of 4-min duration, were made on different days during the final period when each condition was in effect (a total of 10 tape recordings). The recordings were made at the same time of day in each condition, but at times when formal data were not collected.

For each recording session, a cassette recorder and microphone were placed on a shelf adjacent to the play room. The volume control was fixed. Caregivers were aware the recordings were being made but were not told why.

Six women, naive to this research but all having experience working with young children, were then asked to listen to the recordings and rate tape segments as pleasant or unpleasant.

Raters were told only that the tapes were made in a toddler day-care center serving 1- and 2-yr-old children. The tapes were presented in random order and no cues identifying the condition in effect were present. Not all raters heard the tapes in the same order. An auditory cue at the end of each 10 sec signalled the rater to write down whether she found the preceding 10-sec segment to be pleasant or unpleasant.

To determine the acceptability of the procedures to the people using them, an anonymous questionnaire was distributed to all caregivers following the second contingent observation period (Day 29) when they had had experience with both procedures. They had not seen graphs of the data, nor had they been told anything about the results. Caregivers were asked which procedure they preferred, which they felt was easier to use, and which they thought taught the children more about getting along with fewer problems in a group.

The acceptability of contingent observation procedures to the children's parents was assessed by posting a description of the procedures, inviting parents to express their objections, if any, to the center supervisor, and then asking parents to express their opinions at a meeting held to discuss center procedures.

RESULTS

Disruptive Behaviors

The contingent observation procedure was considerably more effective than redirection in controlling child disruptions and aggressions in the Toddler Center. Aggressions were looked at separately because such behavior often arouses the concern of parents and child-care workers. Figure 1 shows the total number of disruptions (including aggressions) per child hour, and the number of aggressions per child per hour under each day of each condition and on the two follow-up days one and two months after implementation of contingent observation procedures was transferred to the center supervisor's regular monitoring duties.

As contingent observation conditions were alternated with redirection conditions, the average number of both total disruptions and aggressions was much lower when contingent ob-

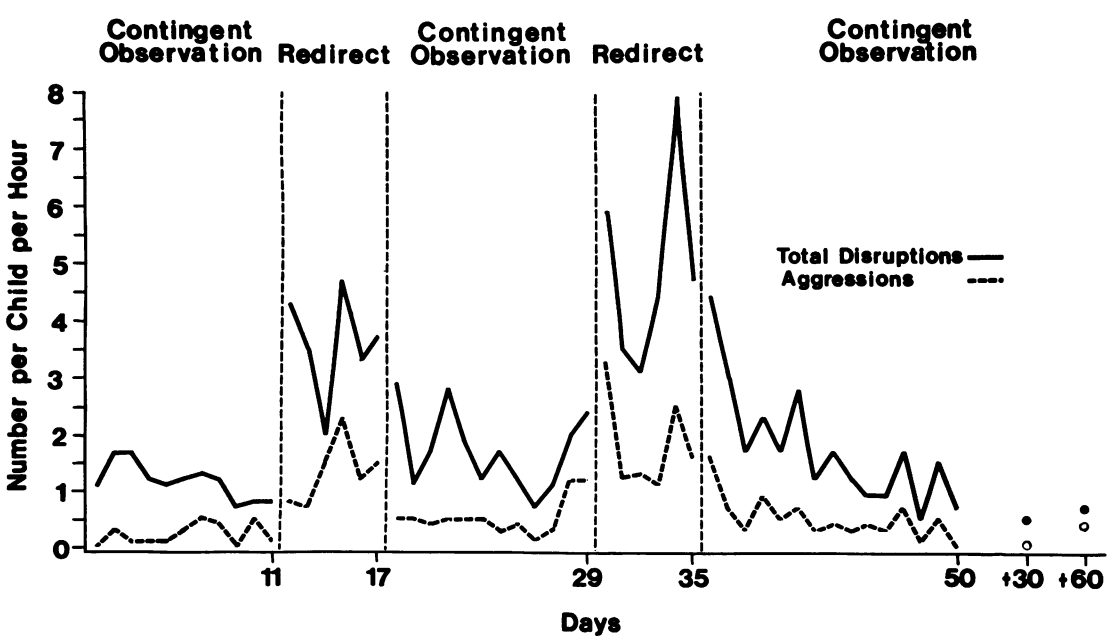

Fig. 1. Number of disruptions and aggressions per child per hour in a Toddler Day Care Center for 50 days and follow-up days at one and two months.

servation rather than redirection was being used. The mean number of total disruptions per child per hour was 4.3 under redirection but only 1.6 under contingent observation; the mean number of aggressions per child per hour was 1.6 under redirection but only 0.4 under contingent observation. Data collected on the two follow-up days showed that both total disruptions and aggressions remained at very low levels. Disruptions averaged 0.6 per child per hour and aggressions averaged 0.2 per child per hour.

The data were also analyzed for the response of individual children to the two procedures. Only those children who had been in attendance at least three days before the study was initiated and who remained through the complete experiment were included, a total of 19. Of these, 15 showed the same functional relationship between average number of disruptions and experimental condition as did the group as a whole; that is, the vast majority of children engaged in more disruptive behaviors when the redirect condition was in effect than when contingent observation was in effect. Data for the four remaining children were inconsistent; disruptions were not consistently higher in either condition. None of these four children, however, showed the reverse functional relationship.

Social Validation

When the social significance of the reduction in disruptive behaviors was assessed by having six raters evaluate the pleasantness/unpleasantness of tape segments under both experimental conditions, the Toddler Center was rated as more pleasant sounding by all six raters when contingent observation procedures were in effect. All six raters scored more segments from the redirect condition as unpleasant. This was true for each tape and for the tapes as a whole. The median number of segments rated as unpleasant was 42.5 for redirection and 17.0 for contingent observation. A Mann-Whitney U test showed this difference to be significant ($U = 0$, $n = 6$, $p < 0.001$). The order in which tape segments were presented did not affect the ratings.

In answer to questions on the anonymous caregiver survey, three of the five caregivers said they preferred "sit and watch", thought it was easier to use than "redirect", and felt it taught the children more about getting along in a group. The two other caregivers said they did not entirely like either procedure but found good and bad aspects in both. Each said the redirection procedure was easier to use, and one said the redirection procedure taught the children more about getting along in a group, whereas the other claimed to be unable to determine which taught the children more.

No parents expressed any objection to the procedure, and several said they were using similar disciplinary methods at home. The only criticism offered was the opinion of some parents that the contingent observation procedure was not strict enough and therefore might not reduce disruptions.

Caregiver Adherence to Procedures

Overall, the caregivers applied the prescribed procedures with about the same degree of accuracy in both conditions. Under contingent observation conditions, mean caregiver adherence to procedures for the disruptions they observed was 82% (range 33% to 100%), and under redirection conditions 87% (range 59% to 100%). Of the total number of child disruptions recorded by the observer, caregivers did not observe 15% under contingent observation conditions and 29% under redirection conditions. These "misses" received no form of adult attention.

Despite the eventual high level of accuracy in following procedures, caregiver accuracy in applying the contingent observation procedures was low initially—averaging only 69% (range 33% to 100%) on the first five days the condition was in effect. Publicly posting total percentage of accuracy effectively increased that percentage to a mean of 92% (range 86% to

100%) on the remaining six days of the condition.

Data collected during spot checks following the study showed that caregiver adherence to the contingent observation procedures was adequately maintained by the supervisor's daily checks and posting of the "quality check" form. The supervisor recorded inaccuracies in performing the procedures on 17% of the days that checks were made, and the observer found inaccuracies occurring following 15% of the disruptions observed during spot checks.

DISCUSSION

The contingent observation procedure, in which children exhibiting disruptive behaviors are systematically removed from the group, asked to sit and watch briefly, thus becoming observers rather than participants, and then given positive attention for appropriate behavior, appears to be more effective in reducing disruptions in a day-care setting for young children than the commonly used redirection procedure. The results showed that contingent observation procedures maintained a level of disruptions and aggressions less than half that occurring when caregivers used redirection procedures. This lower level of disruptions was obtained for the entire group and for the vast majority of individual children.

Of the 19 children for whom individual data were compiled, 15 responded positively to the contingent observation procedures; that is, their disruptive behaviors were at a lower level under this condition than with redirection procedures. Two of the four children whose level of disruption did not vary had a physical problem. One had an unusual illness accompanied by much pain during most of the study. The second was diagnosed as partially deaf. These physical problems appeared to contribute to the lack of response of these children to the procedures. The other two children had very low rates of disruption under both conditions. Although their levels of disruptive behavior did not vary significantly under the two conditions, they both exhibited fewer disruptions during the final contingent observation condition than they had during the preceding redirection condition.

As seen in Figure 1, in the first and last contingent observation conditions, the levels of disruptive behavior tended to decline the longer the condition was in effect. During the second contingent observation condition, however, both total disruptions and aggressions were higher during the last two days of the condition than they had been previously. (The decision to switch conditions was made before these days' data were summarized.) On those two days, a substitute caregiver unfamiliar with the procedures was filling in for a regular caregiver. This change caused a considerable drop in accuracy in caregiver adherence to procedures: from 100% on the preceding two days to 68% on those two days.

The objectively measured decreases in disruption also appeared to be obvious to more subjective observers. Raters of audio-tape recordings judged the Toddler Center to sound more pleasant more frequently under contingent observation than under redirection conditions. The "sit-and-watch" procedures also proved to be socially acceptable to both caregivers and parents.

The concern in this study, to develop a disciplinary procedure that was socially acceptable as well as effective, characterizes a growing awareness that the consumers must be considered if behavior analysis is to contribute to the solution of social problems. Procedures must be acceptable to the persons intended to use them, practical to use, easily and quickly learned, acceptable to the individuals (or their guardians) affected by the procedures, and acceptable to persons observing their use *besides* being effective in modifying behavior. Azrin and his colleagues have addressed these issues in developing procedures for toilet-training retardates and normal children (Azrin and Foxx, 1971; Foxx and Azrin, 1973) and for reducing agitated aggres-

sive behaviors in institutionalized adults (Foxx and Azrin, 1972; Webster and Azrin, 1973).

While contingent observation may not be the most effective procedure to use to reduce young children's disruptions, other procedures such as seclusion timeout or physical punishment are likely to be considered inappropriate because of the mildness of the children's disruptive behaviors.

The gentle instructional methods usually recommended—of correcting the children and redirecting them to other activities considered to be more appropriate—are not likely to reduce inappropriate behavior or to teach young children appropriate social behaviors. In fact, these procedures are likely to teach the children the utility of inappropriate behavior by providing predictable social and material reinforcers for it.

The contingent observation procedure, in which the child becomes an observer rather than a participant, relies on a reinforcing setting. The mildness of the simple removal to the periphery is likely to be effective in reducing problem behavior only in a context of attractive toys and play activities. In this toddler day-care center, not once during all of the observations was it necessary for caregivers to use the back-up measure of the "quiet place" because a child refused to sit on the periphery. If there were no functional differences between the reinforcers for participating and observing, back-up measures of more severe timeouts would probably be needed to reduce disruptions. The remediation for this state of affairs should be to provide more engaging activities, rather than more severe or longer periods of timeout.

Thus, it appears that the contingent observation procedure, in which children who exhibit disruptive behaviors are told what was inappropriate about their behavior and what they could have done instead, set on the periphery of play to watch other children's appropriate behaviors, then returned to the group and praised for appropriate behavior, is an effective, humane, and acceptable method for reducing disruptive behavior and aggression in day-care programs for young children.

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